

# Comparisons of Job Characteristics

**Focus Occupation:** Environmental Science and Protection Technicians, Including Health (19-4091)

**Associated Occupation:** Water and Wastewater Treatment Plant and System Operators (51-8031)

Compare Knowledge

Compare Skills

Compare Abilities

Compare Detailed Work Activities

Compare Tools and Technologies

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge		Similarity of Focus Occupation to Associated Occupation: 80			
Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091) Associated Occupation: Water and Wastewater Treatment Plant and System Operators (51-8031)					
Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Mechanical	6.8	14.8	8.5	<<	Extensive education and/or training may be required
Mathematics	9.2	13.5	12.3	0	Current knowledge level may be sufficient
Physics	4.3	13.2	9.9	<<	Extensive education and/or training may be required
Public Safety and Security	6.9	12.7	11.1	<	Expanded education and/or training may be required
Chemistry	4.8	12.6	13.2	0	Current knowledge level may be sufficient
Engineering and Technology	5.7	11.1	9.7	<	Expanded education and/or training may be required
Biology	3.7	10.9	11.4	0	Current knowledge level may be sufficient
Production and Processing	6.0	10.8	5.6	<<	Extensive education and/or training may be required
Building and Construction	4.0	10.0	6.8	<<	Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

Skills		Similarity of Focus Occupation to Associated Occupation: 44			
Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091) Associated Occupation: Water and Wastewater Treatment Plant and System Operators (51-8031)					
Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	

Operation Monitoring	6.6	11.9	9.1	<<	Extensive development of skills in this area may be required
Operation and Control	5.4	11.4	8.5	<<	Extensive development of skills in this area may be required
Quality Control Analysis	5.9	10.3	7.2	<<	Extensive development of skills in this area may be required
Equipment Maintenance	3.5	9.3	5.3	<<	Extensive development of skills in this area may be required
Troubleshooting	4.5	9.3	6.3	<<	Extensive development of skills in this area may be required
Repairing	3.4	9.0	4.7	<<	Extensive development of skills in this area may be required
Equipment Selection	3.3	7.4	4.7	<<	Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 86			
Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091) Associated Occupation: Water and Wastewater Treatment Plant and System Operators (51-8031)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Perceptual Speed	7.4	9.8	8.5	<	Some improvement in abilities may be required
Depth Perception	5.3	8.0	6.7	<	Some improvement in abilities may be required
Gross Body Equilibrium	3.2	7.1	3.1	<<	Extensive improvement in abilities may be required
Gross Body Coordination	3.9	6.9	4.4	<<	Extensive improvement in abilities may be required
Response Orientation	4.0	6.9	5.0	<<	Extensive improvement in abilities may be required
Wrist-Finger Speed	3.2	5.4	3.9	<<	Extensive improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 68
<b>Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091)</b> <b>Associated Occupation: Water and Wastewater Treatment Plant and System Operators (51-8031)</b>		
Work Activities	Exclusivity of Activity	
Collect samples for testing	58	
Direct and coordinate activities of workers or staff	3	
Test materials or solutions	73	

Use laboratory equipment	60
Use precision measuring tools or equipment	17

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Tools and Technologies that Both Occupations Have in Common

Similarity of Focus  
Occupation to Associated  
Occupation: 75

**Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091)**  
**Associated Occupation: Water and Wastewater Treatment Plant and System Operators (51-8031)**

Tools and Technologies	Exclusivity
Business function specific software	1
Cameras	2
Computers	1
Content management software	6
Data management and query software	1
Electrochemical measuring instruments and accessories	9
Gas analyzers and monitors	10
Industry specific software	1
Light and wave generating and measuring equipment	4
Liquid and solid and elemental analyzers	19
Pumps	9
Sampling equipment	12
Spectroscopic equipment	10
Water treatment and supply equipment	21

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.